

APPLICANT(S): VIRTUAL PORTS LTD.
SERIAL NO.: 10/563,229
FILED: January 3, 2006
Page - 8 -

REMARKS

The present response is intended to be fully responsive to all points of objection and/or rejection which were raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application is respectfully requested.

Applicants assert that the present invention is new, non-obvious and useful. Prompt consideration and allowance of the claims is respectfully requested.

It is respectfully submitted that no new matter was introduced into the amendments.

Status of Claims

Claims 29-37 are pending. Claims 1-28, 35 and 38-40 are canceled. Claims 29-34 and 36-37 are currently amended. Claims 41-43 are withdrawn.

Amendment to the claims

Claim 29 is amended to read:

"A surgery-assisting anchoring device for use in minimally invasive surgeries within a cavity of the human body, comprising at least one first anchoring means and at least one second anchoring means, wherein said first anchoring means is adapted for attaching said surgical instrument holding device to an internal surface within said cavity and said second anchoring means is adapted for attaching at least one surgical instrument to said

APPLICANT(S): VIRTUAL PORTS LTD.
SERIAL NO.: 10/563,229
FILED: January 3, 2006
Page - 9 -

surgical instrument holding device within said cavity; further wherein said surgery-assisting anchoring device is configured for being introduced entirely into said cavity"

Support for the phrase "*further wherein said surgery-assisting anchoring device is configured for being introduced entirely into said cavity*" is found, inter alia, in the 'DETAILED DESCRIPTION OF THE INVENTION' paragraph [088]: "*The device can be moved from one position to another and reattached to the undersurface of the abdominal wall, or to various tissues within a cavity, without creating any additional openings in the cavity wall*"; and in the original claim 29: "*An anchoring device for use in surgery within a cavity of the human body, comprising connected first and second attaching means, said first attaching means for attaching the device to an internal surface within a cavity of the human body and said second attaching means for attaching to surgical instruments or devices within said cavity*".

PRIORITY

Certified copies of the priority documents filed in the United Kingdom on 24 October 2003 and 02 July 2003 (0324830.9 and 0315479.6 respectively) are being submitted separately by mail.

CLAIM OBJECTION

With respect to the objection of claim 30, the phrase "said means" has been amended to read "said first anchoring means" so as to be more clarify.

It is respectfully submitted that all the claims have been reviewed for informalities and that all the terms used to identify elements of the claimed invention are consistent.

APPLICANT(S): VIRTUAL PORTS LTD.
SERIAL NO.: 10/563,229
FILED: January 3, 2006
Page - 10 -

CLAIM REJECTIONS

35 U.S.C. §112 Rejections

Claims 30, 33, 35, 36 and 37 of the present application, 10/563,229, are rejected to by the examiner under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 30, said claim has been amended and the phrase "such as" has been deleted from said claim.

With regard to claim 33, said claim has been amended and the phrases "such as" and "for example" have been deleted from said claim.

With regard to claim 35, said claim has been canceled.

With regard to claim 36, said claim has been amended and the phrase "optionally" has been deleted from said claim.

With regard to claim 37, said claim has been amended and the phrase "optionally" has been deleted from said claim.

35 U.S.C. §102 Rejections

Claims 29-35 and 37 of the present invention were rejected to by the examiner under 35 U.S.C. 102(e) as being anticipated by Peng, US patent application no. US2003/0009080 (refers hereinafter as '080).

APPLICANT(S): VIRTUAL PORTS LTD.
SERIAL NO.: 10/563,229
FILED: January 3, 2006
Page - 11 -

The applicant maintains that the concept behind the present application differs from that of Peng.

The present invention provides a surgical instrument holding device for use in minimally invasive surgeries within a cavity of the human body, comprising at least one first anchoring means and at least one second anchoring means, wherein said first anchoring means is adapted for attaching said surgical instrument holding device to an internal surface within said cavity and said second anchoring means holds at least one surgical instrument to within said cavity; further wherein said surgical instrument holding device is inserted as a whole into said cavity.

The core novelty of the present application stems from the ability to both (i) attach the surgical instrument holding device to an internal surface within a cavity of the human body (via the first anchoring means); and, (ii) attach at least one surgical instrument to said surgical instrument holding device within the cavity (via the second anchoring means). It should be emphasized that *entire surgical instrument holding device is inserted into the body cavity* in minimally invasive surgeries. Amongst other advantages, the device eliminates the need for an anchoring point external to the body to anchor a surgical instrument. At the present time there is a need for a dedicated port (or point to which a surgical instrument may be affixed) for any surgical instruments not held by the surgeon's hand. Thus, if four instruments must function in parallel there is a need for four ports.

One of the key innovations of the present invention is use of multiple instruments dependent upon the same port, simultaneously.

APPLICANT(S): VIRTUAL PORTS LTD.
SERIAL NO.: 10/563,229
FILED: January 3, 2006
Page - 12 -

Application '080 discloses an organ manipulator which includes at least one suction member or adhesive disc mounted to a compliant joint, a flexible locking arm for mounting such suction member or compliant joint.

Application '080 further discloses a method for retracting and suspending an organ in a retracted position using suction (or adhesive force) so that the organ is free to move normally in at least the vertical direction during both steps.

Application '080 claims:

"Claim 1: An organ manipulation apparatus, including: at least one suction member having an inner surface and an outer surface, wherein the suction member is configured to exert sufficient suction force on an organ to move the organ when the suction member is placed against the organ, a pressure differential is established between the inner surface and the outer surface, and the suction member is moved; a support structure; and a compliant joint coupled between the suction member and the support structure, wherein the support structure and the compliant joint are configured to support the suction member, with the organ supported in a retracted position by the suction member, such that the suction member has freedom to move at least along an axis of the suction member relative to the support structure.

Claim 38: The apparatus of claim 1, wherein the support structure includes a fixed structure and an arm adjustably mounted to the fixed structure, the arm has a flexible state and a rigid state, and the arm comprises: a cable; and ball joints threaded along the cable, each of the ball joints having a main portion defining a convex surface and part of a concave socket surface, and an insert portion defining a remaining part of the concave socket surface, wherein the

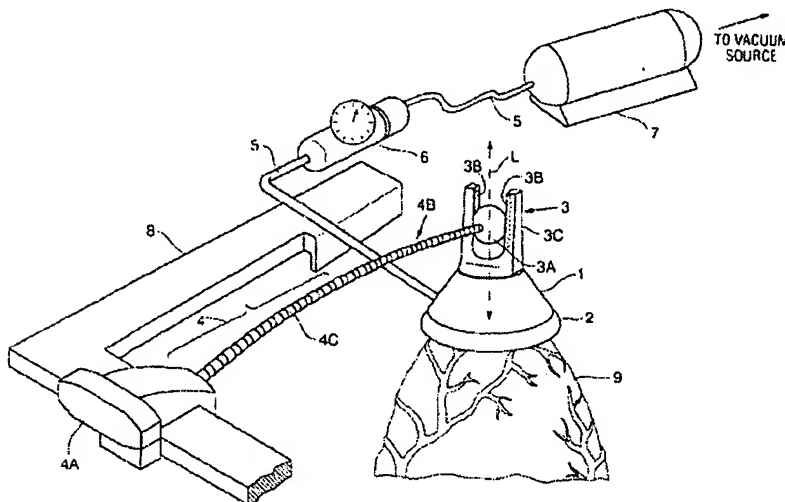
APPLICANT(S): VIRTUAL PORTS LTD.
SERIAL NO.: 10/563,229
FILED: January 3, 2006
Page - 13 -

main portion is molded from hard plastic and the insert portion is molded from a material having greater friction than does the hard plastic.

Application '080 states the following:

"The mounting structure can be a conventional sternal retractor (of the type used to maintain a sternal incision in an open state for cardiac access), an operating table, or another rigid structure. (paragraph [0023])

The following figure (figure 1 of '080) illustrates a preferred embodiment of '080:



Application '080 states that numerical reference 1 denotes the suction cup, numerical reference 3 denotes the ball sliding joint assembly 3, numerical reference 4 denotes the locking attachment arm 4, numerical references 5-7 denote the suction line, suction flow regulator and vacuum accumulator respectively:

APPLICANT(S): VIRTUAL PORTS LTD.
SERIAL NO.: 10/563,229
FILED: January 3, 2006
Page - 14 -

"the inventive apparatus includes the following main elements suction cup 1 (including conforming seal 2 which extends around the periphery of cup 1), ball sliding joint assembly 3, flexible locking attachment arm 4 (which has both a rigid and a flexible state), suction line 5, suction flow regulator 6, and vacuum accumulator 7."

(Paragraph [0070])

"One end of flexible locking attaching arm 4 is attached to sternal retractor 8 (this end can alternately be attached directly to an operating table)..."

(Paragraph [0079])

Figure 1 clearly illustrates that the attaching arm 4 is coupled to both the ball sliding joint 3 and to *an external device (i.e., external to the body)*. As described in the application the external device can be a sternal retractor or alternatively the operating table:

"As shown in FIG. 1, one end of flexible locking attaching arm 4 is coupled to sternal retractor 8 (this end can alternately be attached directly to an operating table) and the other end of arm 4 is attached to ball sliding joint 3: Ball 3A rides in grooves 3B of element 3C. Cup 1 is mounted rotatably to element 3C (e.g., by a binding screw which couples them together)"

(Paragraph [0079])

Application '080 does not mention nor claim the possibility of attaching the attaching arm 4 to a surgical instrument whilst the entire device embraced with the surgical instrument is maintained *within the minimally invasive operated body cavity*.

APPLICANT(S): VIRTUAL PORTS LTD.

SERIAL NO.: 10/563,229

FILED: January 3, 2006

Page - 15 -

Applications such as '080 are handled and controlled from outside of the body cavity, e.g. held by hand by the surgeon or attached to the operating table, as opposed to the present application in which the device is being fixed inside the body cavity itself as in the present invention.

Figure 20 of the present application reproduced below, for example, clearly shows the intent of the present application, namely to provide a support base 51 for a surgical instrument 7, where the support is anchored not by an external member but rather by an internal organ or surface 11. While there is a superficial similarity insofar as both devices have one end attached to an organ or internal bodily surface, a key difference exists. Namely, the other end of the device, in the case of '080, attaches to an external anchoring point. In the present application, on the contrary, the other end of the device itself holds a surgical device for use in medical procedures, and this device is furthermore held within the body cavity.

Thus in '080 the external anchor ultimately provides support to hold an internal organ, while in the present application the internal organ or surface provides support to hold a surgical instrument.

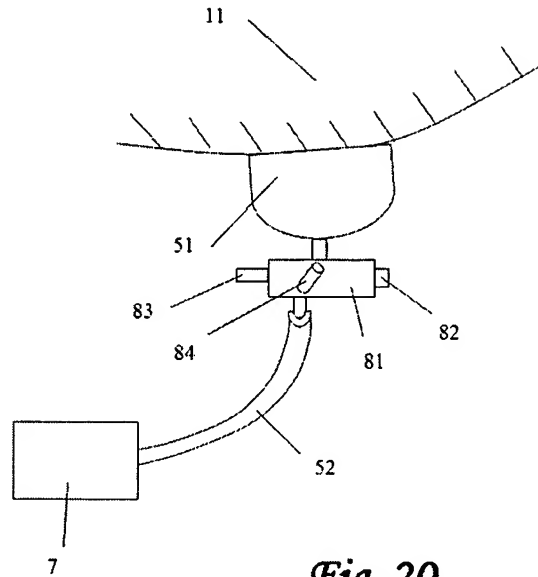


Fig. 20

It is recognized that intended use of a device does not limit its possible anticipation by a structurally identical or similar device with a different intended use. However, the applicant respectfully submits that the device provided in '080 is not only different in intended application but in important structural characteristics. These differences include:

1. The attachment of one end of the device to an internal organ and the other to an external anchoring point, as opposed to the attachment of one end of the device to an internal organ and the other to a surgical instrument. This difference necessitates, inter alia, differences in the attachment means [attachment to surgical device as opposed to external support - see e.g. '080 claim 38].
2. The design of the '080 device is such that one end will hold an organ within the body cavity and the other will be attached external to the body (see e.g. '080

APPLICANT(S): VIRTUAL PORTS LTD.

SERIAL NO.: 10/563,229

FILED: January 3, 2006

Page - 17 -

claim 38) , while in the current application the entire device resides within the body cavity (see for example current application claim 29). This has important ramifications for the use of the device. While the device of '080 can not be used in minimal invasive surgeries, the device of the present application is especially designed to be used in such surgeries.

Application '080 does not describe nor claim any use of the device in minimal invasive surgeries. In order to application '080 to be used in minimal invasive surgeries several unobvious modifications will have to be made. In minimally invasive surgery, the various tools to be employed must be introduced via a plurality of small-diameter tubes, a mechanical limitation requiring serious engineering effort and dedicated system design to effectively overcome.

Another example for the important ramifications for the use of the device (according to the present application) in aiding surgery, for example in those surgeries wherein the body of the patient must be moved during the course of the surgery. In the present application, this movement will be facilitated since the entire device is within the body and moves with it, while in the case of '080 the external anchoring point would have to be moved in tandem with the body of the patient.

3. The end of the device which is not attached to the organ in application '080 is fixed, while in the current application the end of the device which is not attached to the organ is preferably mobile to allow for movement of the surgical device (see for example current application claim 31).

APPLICANT(S): VIRTUAL PORTS LTD.
SERIAL NO.: 10/563,229
FILED: January 3, 2006
Page - 18 -

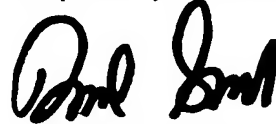
35 U.S.C. §103(a) Rejections

Claim 36 of the present invention stands rejected under 35 U.S.C. 103(a) as being anticipated by Peng, US patent application no. US2003/0009080 (refers hereinafter as '080).

Claim 36 depends upon claim 34, which in turn depends upon claim 29. As we argue that claim 29 is inventive, we respectfully submit that the disposition of claim 36 will judged obvious or not, dependent upon the Examiner's decision regarding claim 29.

Favorable consideration is respectfully requested.

Respectfully submitted,



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